

Application No. 09/821,618
Reply to Office Action of May 1, 2006
Response Dated June 21, 2006

REMARKS

Applicant would like to thank the Examiner, George R. Koch, III, for the courtesies extended to Applicant's representative, David W. Dorton, during the personal interview conducted June 1, 2006. During the interview, the pending claims, particularly independent claims 1 and 7, were discussed with respect to the references of record. Applicant's representative demonstrated differences between the inventions recited in claims 1 and 7 and the references of record, as noted in the Interview Summary and described more fully below. The Examiner agreed to take these differences into consideration upon the submission of a written response to the final Office Action. Accordingly, Applicant now respectfully requests reconsideration of the rejections in accordance with the personal interview.

Claims Rejected Under 35 U.S.C. §102

Claims 1-10 remain pending in the application and stand rejected based on the combination of U.S. Patent No. 6,391,387 to Rutledge et al. and U.S. Patent No. 5,795,390 to Cavallaro, in further combination with U.S. Patent No. 6,266,869 to Tracy, U.S. Patent No. 5,820,623 to Ng, or a brochure published by Anorad Corporation.

Claims 1 and 7 are the only independent claims of this rejected group. Claim 1 is directed to a floating head liquid dispenser, comprising:

a support member mounted for linear movement toward and away from the substrate along a first axis;

a floating liquid dispensing head operatively connected to said support member and configured for floating linear movement relative to said support member along a second axis parallel to the first axis in response to contact of said liquid dispensing head with the substrate, said liquid dispensing head having a liquid flowpath extending therethrough terminating in an outlet for dispensing fluid onto the substrate; and

a linear displacement sensor having a first sensor component supported by and movable with said support member and a second sensor component supported by and movable with said liquid dispensing head, said linear displacement sensor being configured to generate a signal that indicates a sensed displacement of said liquid dispensing head relative to said support member in response to contact of said liquid dispensing head with the substrate

(emphasis added). Claim 7 is also directed to a floating head liquid dispenser and recites similar language.

Applicant respectfully traverses the rejections of claims 1 and 7 because Rutledge '387 fails to teach or suggest each and every element of claims 1 and 7, and the combination of Rutledge '387 with Cavallaro '390, Tracy '869, Ng '623 or the Anorad brochure fails to cure these deficiencies. During the personal interview on June 1, 2006, Applicant's representative noted several differences between claims 1 and 7 and the references of record. In particular, Rutledge '387 is directed to a dispensing system wherein a dispensing head is mounted for pivotal movement under the control of a motor 230 which has been preprogrammed to cause the dispensing head to pivot along

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a desired path. Accordingly, the dispensing head of Rutledge '387 is not a dispense head "configured for floating linear movement," as required by claim 1 and discussed during the personal interview.

Rutledge '387 also does not teach or suggest "a support member mounted for linear movement toward and away from a substrate along a first axis," and a dispensing head "configured for floating linear movement relative to said support member along a second axis parallel to the first axis in response to contact of said liquid dispensing head with the substrate," as required by claim 1 (emphasis added). Rather, the device of Rutledge '387 includes a slide member 644 having components movable along directions parallel to a substrate (indicated by arrows 632, 634) to cause pivotal movement of dispensing gun 610 about an axis G—G, as discussed during the personal interview.

Finally, Rutledge '387 does not teach or suggest a linear displacement sensor "configured to generate a signal that indicates a sensed displacement of said liquid dispensing head relative to said support member in response to contact of said liquid dispensing head with said substrate," as required by claims 1 and 7 (emphasis added). Rather, the sensor assembly 668 of Rutledge '387 only provides a position feedback control to the motor 230, to ensure that the motor moves the dispensing gun 610 along the desired, preprogrammed path.

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Cavallaro '390 is directed to a conventional floating head liquid dispenser having multiple outlets for applying various patterns of dispensed liquid material. Cavallaro '390 does not teach or suggest a linear displacement sensor having a first component supported by and movable with a support member, a second sensor component supported by and movable with the liquid dispensing head, and being "configured to generate a signal that indicates a sensed displacement of said liquid dispensing head relative to said support member in response to contact of said liquid dispensing head with the substrate," as required by claims 1 and 7. Cavallaro '390 wholly fails to appreciate the drawbacks of conventional floating head liquid dispensers sought to be overcome by the present invention.

Tracy '869 is directed to an automated dispensing system having a dispensing unit 58 that is movable along three coordinate axes, but does not teach or suggest a floating liquid head dispenser or a sensor configured to generate a signal in response to contact of a dispensing head with a substrate. Ng '623 is directed to an articulated arm for medical procedures and does not teach or suggest a modification of Rutledge '387 that cures the deficiencies discussed above. For at least these reasons, Applicant respectfully requests that the rejections of claims 1 and 7 be withdrawn.

Claims 2-6 depend from claim 1, and claims 8-10 each depend from independent claim 7. Accordingly, claims 2-6 and 8-10 are in condition for allowance

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for at least the reasons discussed for claims 1 and 7, and Applicant respectfully requests that the rejections of these claims be withdrawn.

Conclusion

In view of the personal interview and the foregoing remarks, this application is submitted to be in complete condition for allowance and early notice to this affect is earnestly solicited. If there is any issue that remains which may be resolved by telephone or facsimile, the Examiner is invited to contact the undersigned in order to resolve the matter and expedite the allowance of this application.

Applicant does not believe that any fee is due in connection with this submission. However, if any fees are necessary to complete this communication, the Commissioner may consider this to be a request for such and charge any necessary fees to Deposit Account No. 23-3000.

Respectfully submitted,

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